

Prove all things; hold fast that which is good.

28 Jan 1900

BOULT'S PATENT
CARVING, PANELING, IRREGULAR MOULDING,
—AND—
DOVETAILING MACHINE.



For Shaping, Edge Moulding, Paneling, Surface Moulding, Moulding Scroll or Fret Work, Dovetailing, etc.

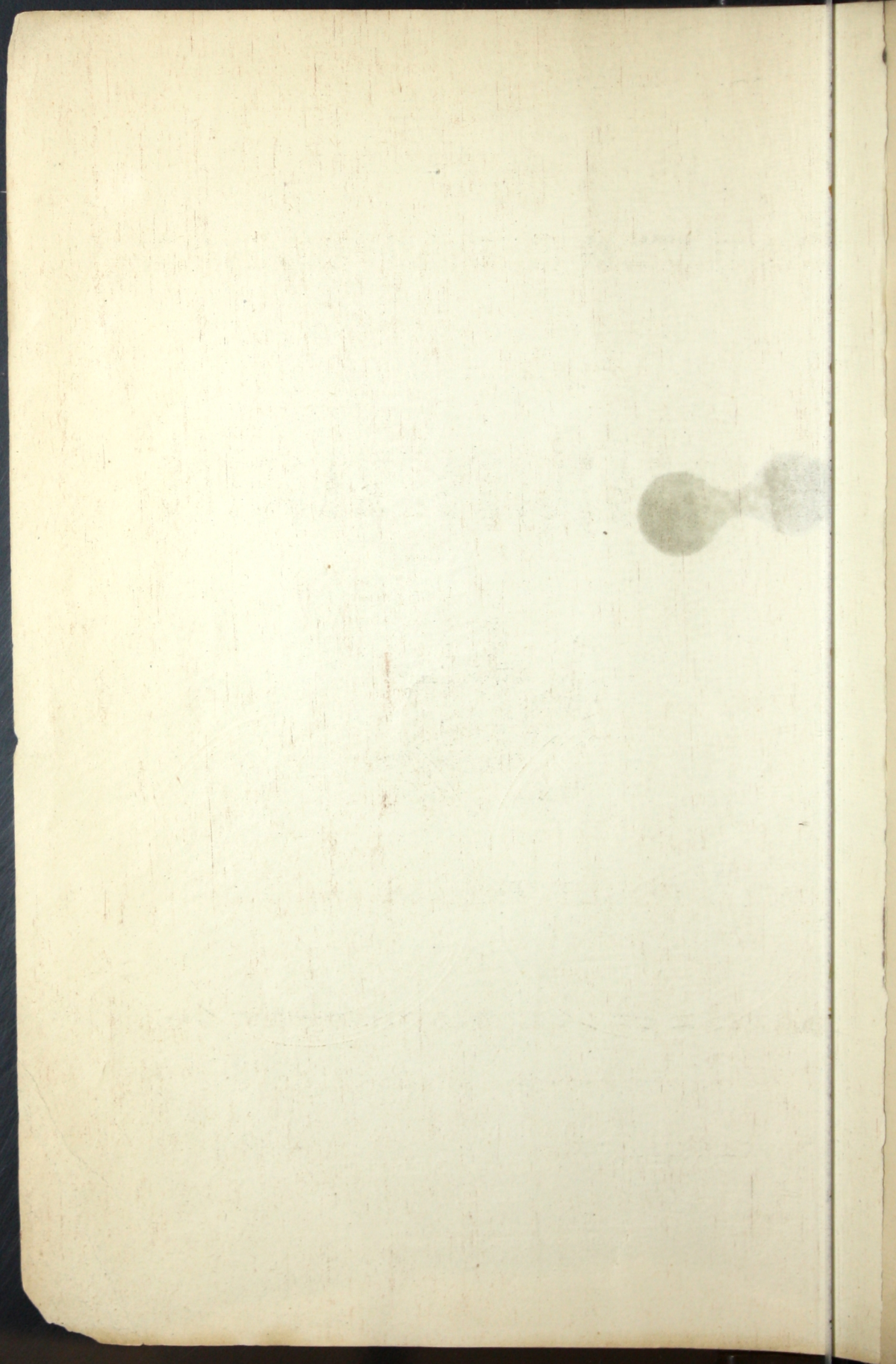


BATTLE CREEK MACHINERY CO.,

Sole Manufacturers.

BATTLE CREEK, MICHIGAN.

1873.

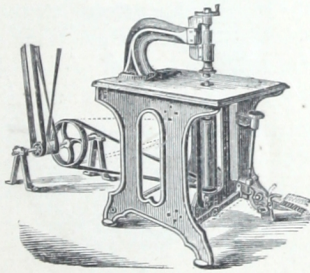


BOULT'S PATENT
CARVING, PANELING,

IRREGULAR MOULDING,

—AND—

DOVETAILING MACHINE.



M. T. BOULT, Patentee and Agent.

BATTLE CREEK MACHINERY CO.,

SOLE MANUFACTURERS.

BATTLE CREEK, - - - MICHIGAN:

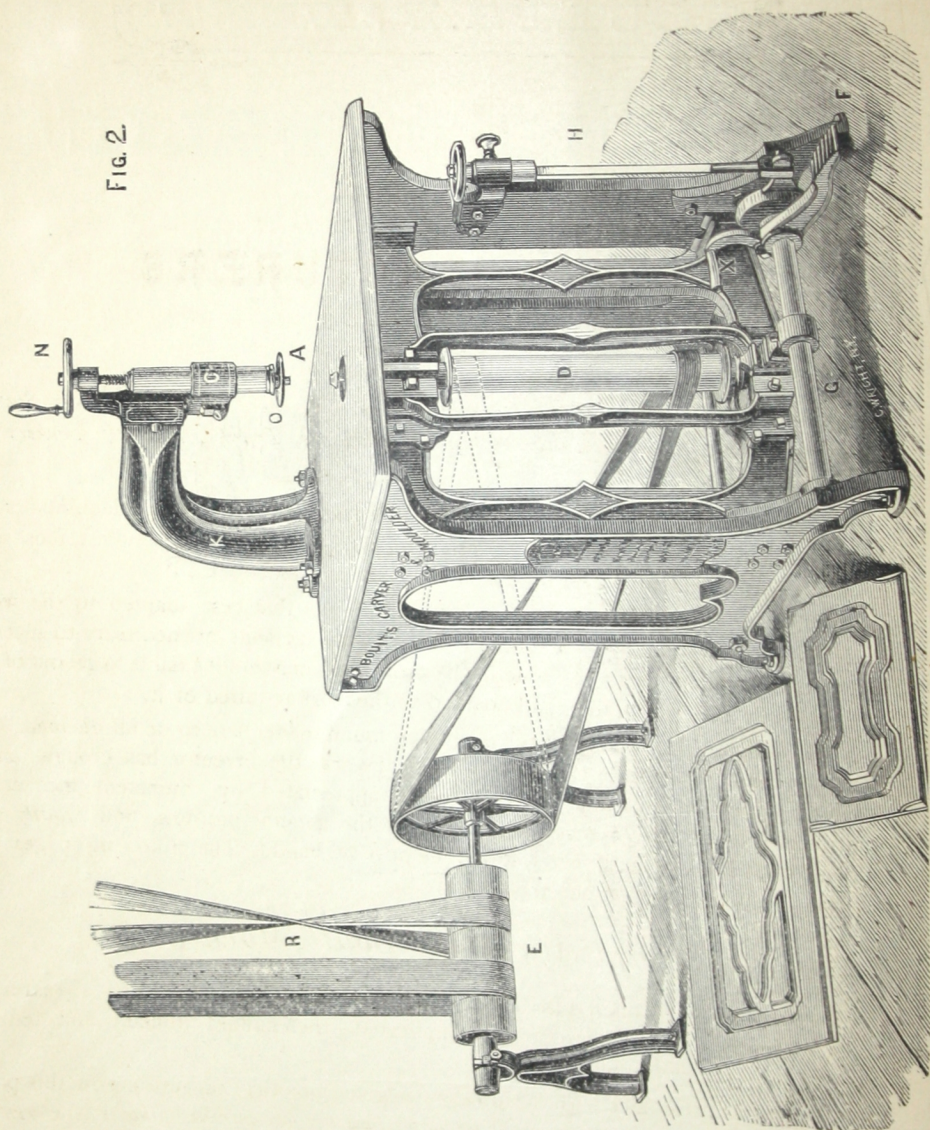


Fig. 2

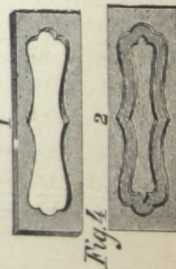
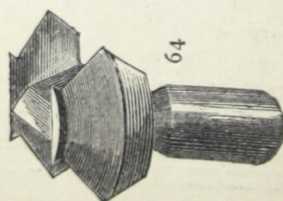
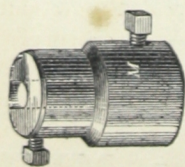
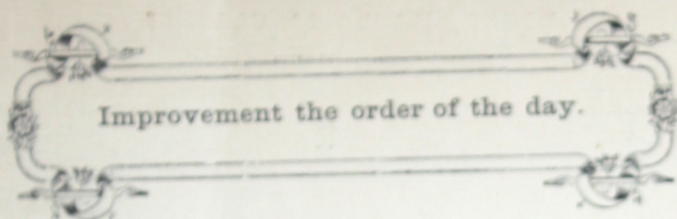


Fig. 1

Fig. 1 shows pattern for cutting Panel.

Patented May 14, 1866. MACHINE FOR SURFACE MOULDING AND PANELING.



TO MANUFACTURERS

—OF—

Furniture, Carriages, Cars, Pianos, Organs, Coffins, Churches, Dwellings, Fences, Stairs, Brushes, Desks, Churns, Chairs, Washing Machines, Trunks, and all workers in Wood.

We would call your attention to the Boulton Carving and Moulding Machine herein illustrated and described, which we claim, in all respects, to be the simplest, most useful, and cheapest Machine ever produced for general wood work.

In the choice of machinery it is an object to select that best adapted to the work to be done. Good facilities combined with good management, are necessary to success. Experience demands that a machine, to be profitable, must not be liable to get out of order; must be simple, durable, and adapted to the work required of it.

The standard machinery of the day being found inadequate to do all deemed necessary, in the adornment of the present styles of work, the inventor has brought out a machine, which, we are happy to say, is being appreciated by competent mechanics, and deemed by them *Thoroughly Practical* in the general business, and *equally well adapted* to all kinds of work heretofore done only by hand. The following pages will explain the varied uses of our machine.

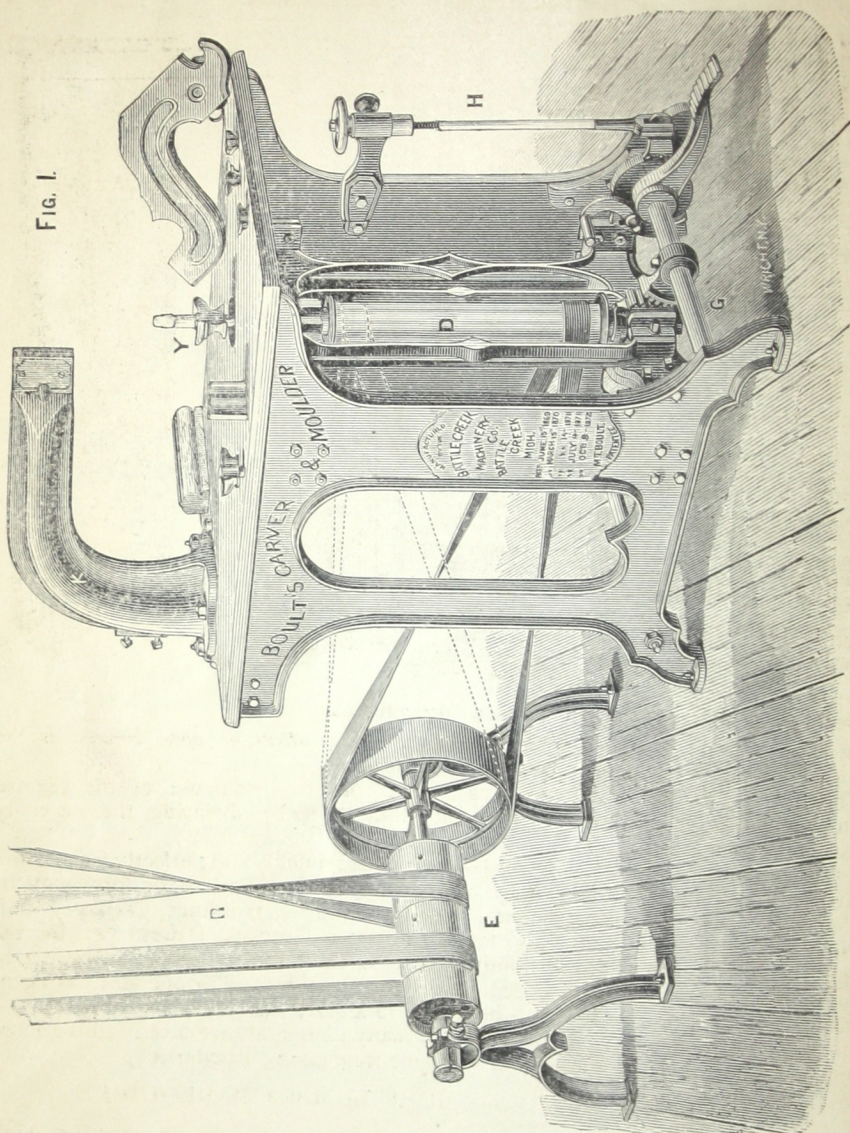
Simplicity of the Boulton Machine.

It has often been offered as an objection, that machines adapted to an extended variety of work must be more or less complicated—the changes difficult and tedious, and the adjustment troublesome.

A long acquaintance with machinery has given practical suggestions on this point. The consequence is, an arrangement so *simple that not five minutes' time or the removal of more than two bolts* is necessary to effect the most RADICAL CHANGE on this machine. The operator is surprised at the *amount and variety* of work he is able to accomplish, with so little change of the parts. In short, the machine is particularly recommended for its *General Application to Business*, and freedom from traps and useless appendages.

Having been EXTENSIVELY INTRODUCED among the Best Establishments of the country, in the principal cities of the North, from the Mississippi to the Atlantic, and its value having at all times been *warmly attested*, there remains but one conclusion: that IT HAS NO PARALLEL AS A HIGHLY EFFICIENT AND USEFUL MACHINE.

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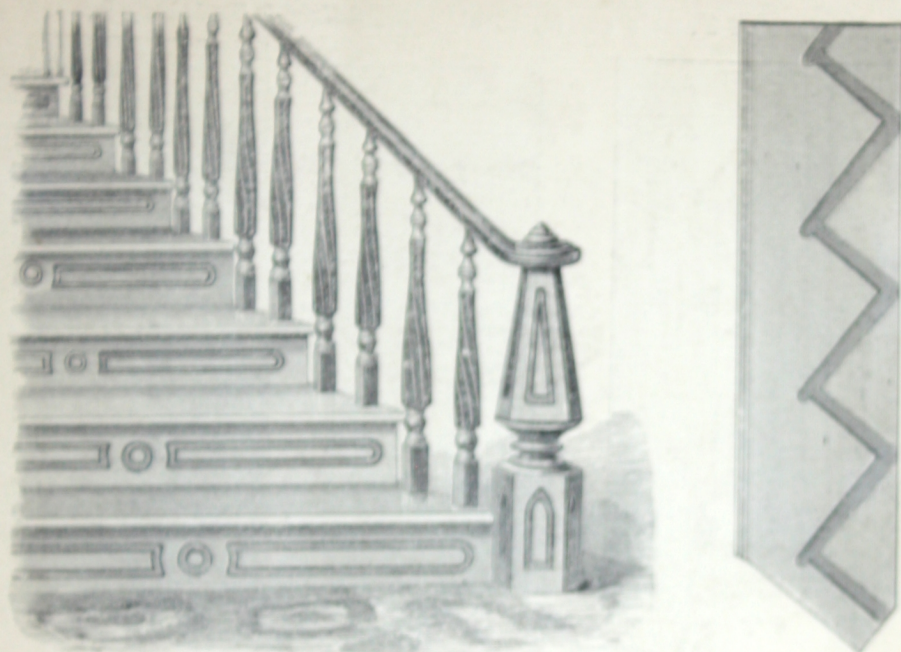
VIEW OF MACHINE AS USED FOR SHAPING AND EDGE MOULDING.

Variety of Uses.

The machine represented and illustrated in this pamphlet has been brought out within the last four years, and has been adapted to the *general wants* of the manufacturers and various workers of wood, and is, at the same time, by its peculiar construction, adapted to specialties heretofore only done by hand,

COVERING A GREAT VARIETY, BOTH ORNAMENTAL AND
INDISPENSABLE.

First. AS A SHAPER, OR VARIETY MOULDING MACHINE, it does all heretofore done by that indispensable machine; working all varieties of mouldings upon the edge of lum-



Specimen of work done on Boulton's patent Moulding Machine.

ber regular or irregular; and is constructed to use *solid cutters, or open knives*, as the work demands, by chucks constructed for such purposes.

The cutters will work when revolving to right or left, by the use of the reverse motion provided for in the counter Shaft and pulleys, thereby obviating the necessity of two spindles and heads.

Secondly. CARVING, PANELING, AND GROOVING, are quickly and perfectly formed and moulded to any design upon the surface of wood for which a pattern or form may be provided for ornamenting Cars, Fences, Furniture, Organs, Buildings, Carriages, Coffins, Newel Posts and Pew Ends; also for cutting Plain Grooves, Dados, &c., mortising and cutting Dovetail Dados for joining work together, and for all work necessary to be done on the *surface of lumber*, in regular or irregular lines. The operator having at all times full control, is able to do all he wishes in a quick and perfect manner.

By making all ornaments in the solid wood, many glue joints are saved; also a large percentage of time and material, and at the same time giving a better job.

THIRTY-THREE PER CENT. MORE LUMBER IS REQUIRED

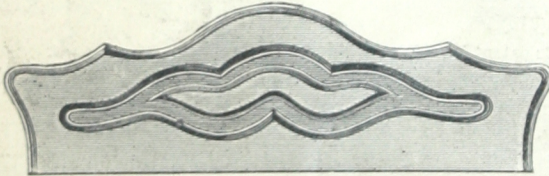
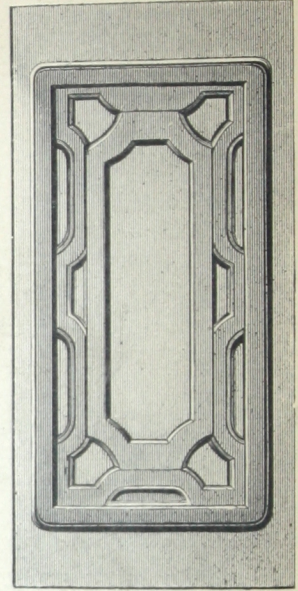
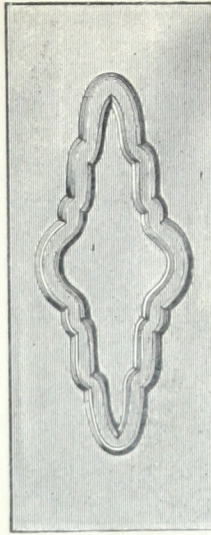
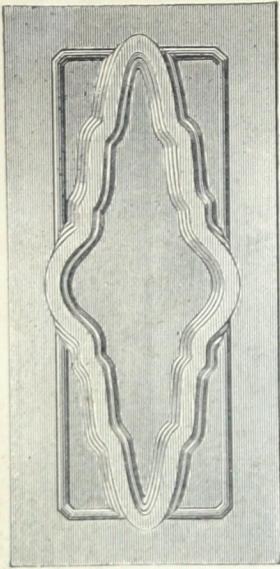
to effect the same appearance by the *old method* of planing on; also six operations, viz., re-sawing, preparing the material, marking out, jig-sawing, moulding, and planing on, either process requiring more time than to make a *better job* by using the facilities afforded by BOULTON'S MACHINE. Every one is aware that work done in the solid wood cannot come to pieces by hard usage, or exposure to damp and heat.

Movements of the Machine.

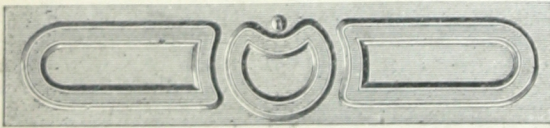
The sphere of movement is unlimited. Any distance can be cut in one direction. No jointed arms or compound slides are used, which limit the movement to a given sphere.

Should the work in hand need to be elaborately done, the patterns are so easily arranged that several figures of different shapes, and at different depths, may be cut, using cutters of different moulds, effecting an endless variety of Beautiful Designs, all of which, being solid, are of the most imperishable nature.

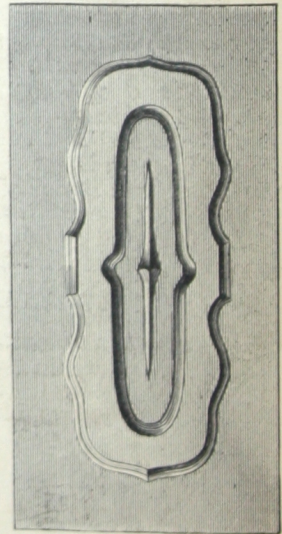
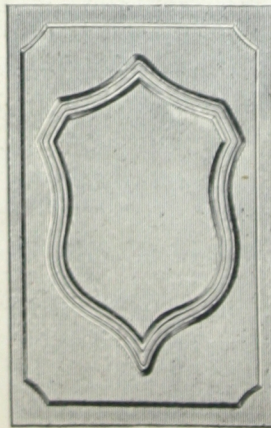
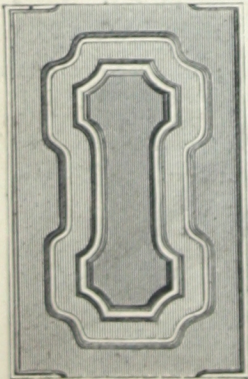
Specimens of Panels cut by Boulton's Moulding & Paneling Machine.



Design for Back of Washstand.



Panel for Drawer.





SAMPLE OF WORK DONE ON BOULT'S PATENT MOULDING MACHINE,
BY RILLING & MENDRE, SOUTH BRID, IND.

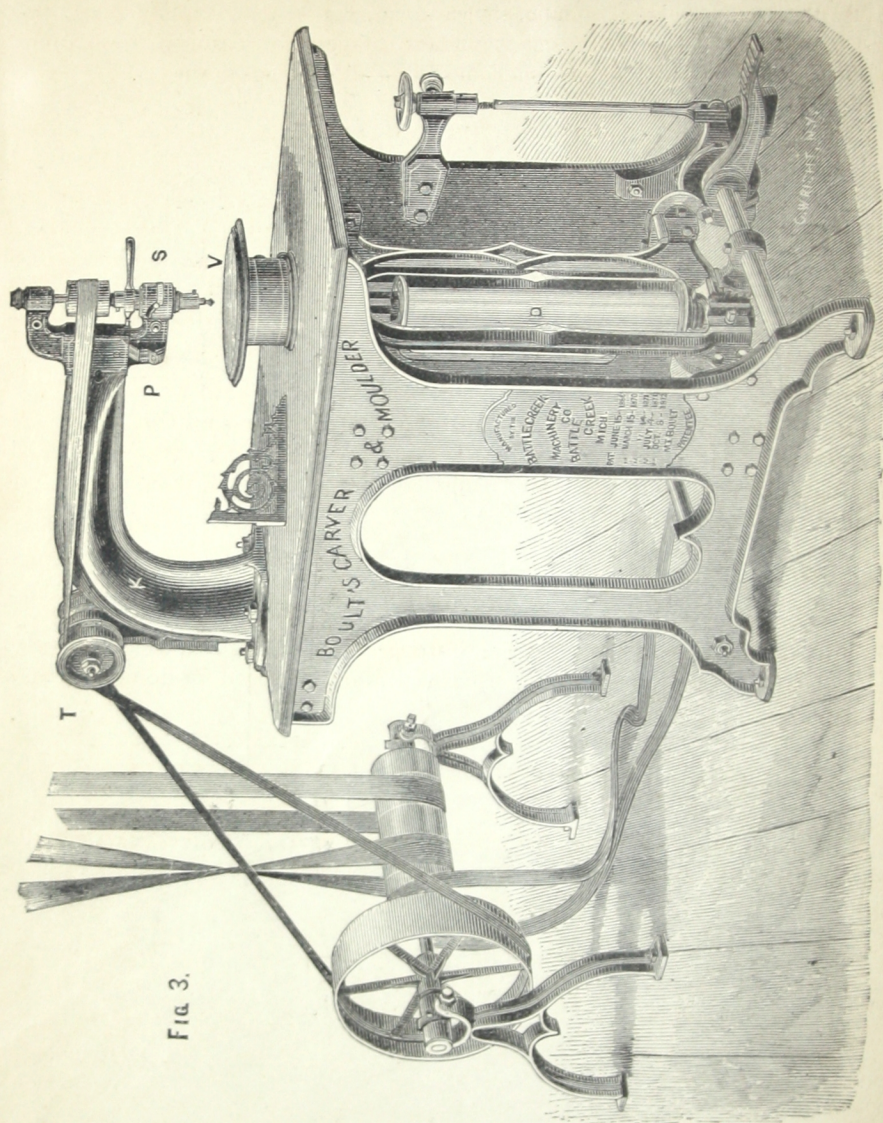
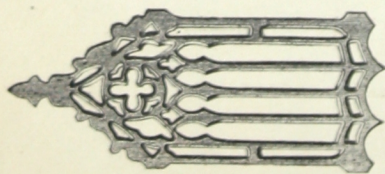


Fig. 3.



This kind of work is Moulded on the Bracket Attachment, as shown in Fig. 3. The most delicate work of the scroll saw can be moulded by this Attachment without injury to its most delicate points.

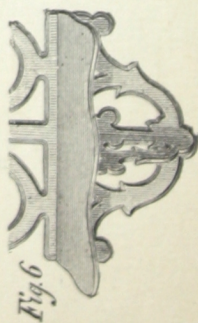


Fig. 6

FIG. 6.—Portion of Moulded Bracket,

By the use of the upper spindle, shown in cut, Fig. 3, p. 8, scroll, bracket, or fret-work, trimmings for balconies and varandahs, drapery for cornices, decoration for churches, furniture, etc., can be done ; moulding all openings down

TO ONE-EIGHTH OF AN INCH.

The most delicate points of the most elaborate fret-work are moulded with safety and dispatch. In fact, moulding, with this part of the machine, is carried to the furthest possible extent. As in the other part of this machine, reverse motion is used to keep the knife cutting with the grain of wood.

THE USES OF THIS BRACKET ATTACHMENT

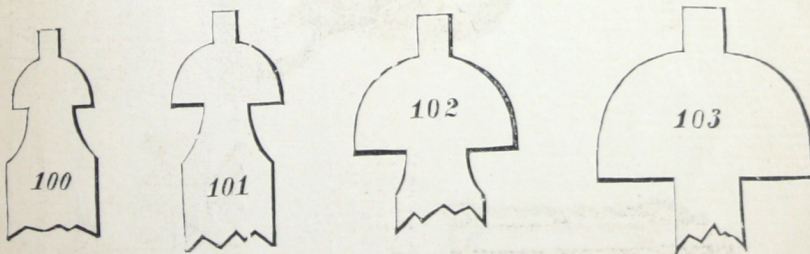
Are of the most varied character, and cannot be enumerated in the limits of this circular. It is adapted to Inlaying, Carving, Tracing, Engraving, Grounding for Carvers and Engravers, Letting in Locks and Hinges on sewing machines, drawers, etc., all of which is done expeditiously, and is of a kind

NEVER BEFORE DONE BY MACHINERY.

It is also used for Inlaying Brushes, Carriages, Picture Frames, etc., in variety too great to be here enumerated. No greater facilities are needed for doing any work of the nature above mentioned.

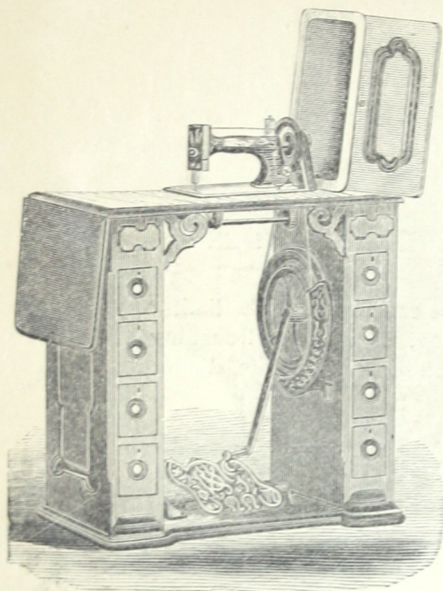
CHAIR WORK OF THE MOST ELABORATE STYLE

Is easily done, where hand work has heretofore been used. We do not hesitate to recommend it to *all* workers of wood as the Most Complete Machine known in the business.

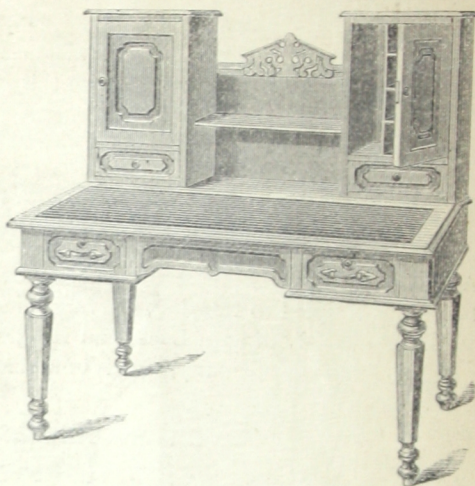


Cutters used for Moulding Scroll Work.

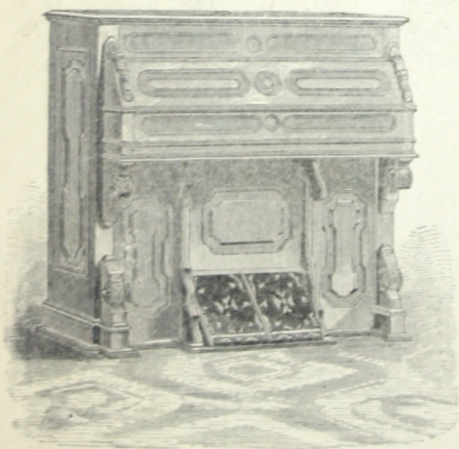
Specimens of work done on Boulton's Patent Moulding Machine.



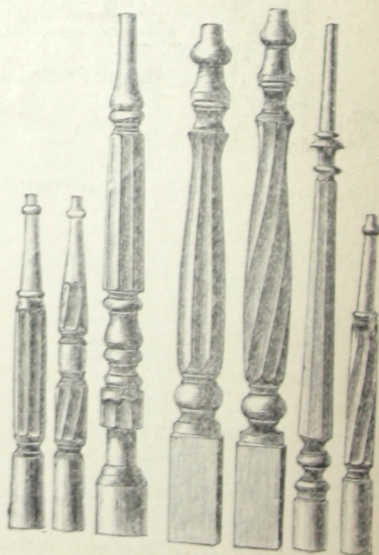
Made by Patzack & Shultz, Chicago.



Made by Thayer & Tobey, Furniture Co., Chicago.

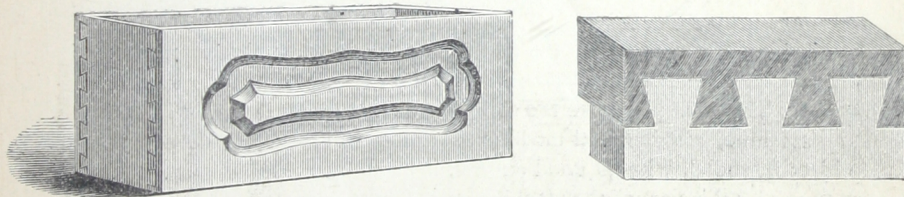
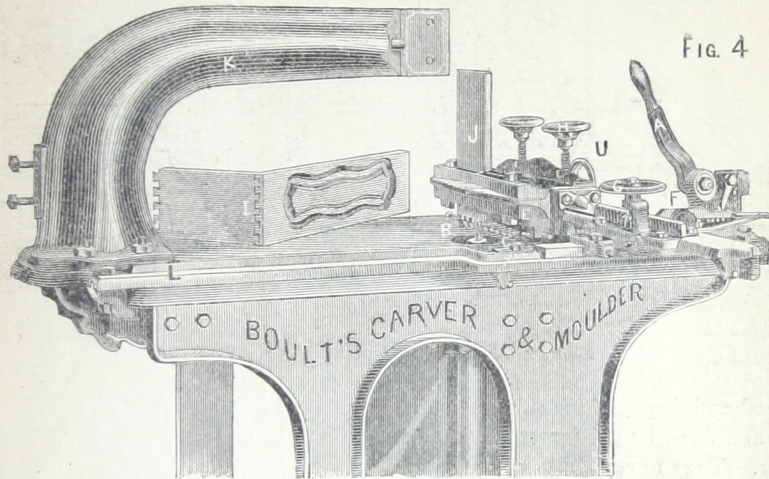


Made by Simmons & Clough, Organ Co., Detroit.



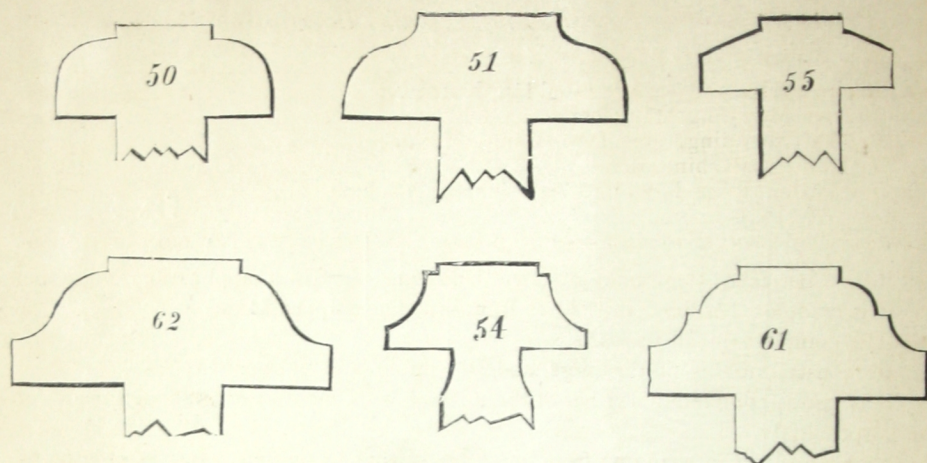
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Boult's Patent Moulding Machine, showing Dovetailing Attachment.



These Illustrations show the well-matched Dovetailing which the Boult Machine is capable of doing.

In the Dovetail Attachment we have a simple and perfect arrangement for making a *strong, beautiful, "honest" Dovetail* on any kind or thickness of lumber, and perfectly adapted to all the requirements for such work, cutting both parts, (side and front,) at the same time. If the drawers are narrow, two sides and two fronts can be cut at the same time—and the work is done with dispatch and with scrupulous exactness. But few manufacturers can afford a machine for Dovetailing exclusively, costing from \$300.00 to \$400.00, which must remain unused a large portion of the time, especially when they can obtain a machine adapted to their every day wants for the small price of \$100.00 additional. Should parties wish a machine for Dovetailing exclusively, our Machine with **Dovetailing Attachment**, costs no more than other dovetailers, besides being adapted to numerous other uses. No party working extensively in this line can afford to be without this valuable attachment.



OUR MOULDING AND CARVING CUTTERS

Are forged and formed from solid steel of best quality, with the moulds all worked on. Formed and freed by our improved process, they cut as free as flat knives, and much smoother. They never bind or burn, and do not loose their shape or mould when sharpened. No time is lost in setting, as in flat knives, and no risk is run in having your hands drawn into the knife by cross-grained lumber.

OUR PATENT SURFACE MOULDING CUTTERS

Have four cutting edges, and have the facility of cutting when revolving to the right or left—therefore have double capacity—save half the expense of cutters, and much time in changing. They will penetrate the solid wood, and travel in either direction.

As no machine, however well made or designed, can serve a good purpose, or fulfill the object intended, without good cutters, it has been made a special effort of the inventor to render this part of the machine an entire success.

Every cutter, for whatever use it has been adapted, has been made with certain fixed principles, that in order to cut freely, do good work and preserve a good and lasting edge, they must cut a clear and perfect shaving, instead of scraping the wood or reducing the shaving to dust or impalpable powder.

OUR CUTTERS WORK EASILY AND RAPIDLY,

And are made of the best material in the market, and are designed so as to render their manufacture inexpensive.

We are prepared with the best facilities for filling all orders for cutters on the shortest notice.

Parties ordering cutters will please make a draft, or send sample of mould they wish to make, when their order will receive prompt attention, and the cutters be warranted to work satisfactory.

An assortment of cutters for each line of work furnished with the Machine without extra charge.

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Prices of Boul's Patent Moulding and Dovetailing Machine.

As a Shaping and Edge Moulding Machine,.....	\$250 00
As a Shaping, Edge and Surface Moulding Machine,.....	300 00
With Bracket Moulding Attachment,.....	350 00
With Bracket Moulding, and Dovetailing Attachment,.....	450 00
As a Dovetailing Machine alone,.....	325 00
As a Dovetailing, Edge Moulding and Shaping Machine,.....	350 00

REASONS WHY MANUFACTURERS SHOULD ADOPT BOUL'S PATENT MOULDING MACHINE.

It pays better for the money invested, being unrivaled in its application and scope.

It is made for business, and is free from superfluous appendages.

It is complete in all its parts.

Its construction is of the most modern, simple, and thorough style.

It is just as complete for either of the lines of work mentioned as though made for one purpose only.

No time is lost in changing from one kind of work to another, *three minutes* being sufficient to make the most radical changes in the Machine.

Being adapted to a variety of purposes, simple and complete, the requirements of several ordinary machines are supplied in one.

A variety of cutters for each line of work are given with each Machine.

It is fully protected by patents, and is no infringement on any other Machine.

We do not use Gear's combination guide-head, with flat knives and grooved collars.

The Machines are furnished promptly, and the interests of patrons are always consulted.

It is far safer to operate than any two-spindled shaper.

It requires far less power than any two-spindled shaper.

There is no other Machine *covering such range and variety of work, or doing it so well.*

You cannot afford to do without it.

~~NOTE~~ All orders for Carvers or Cutters should be addressed to Battle Creek Machinery Co., Battle Creek, Michigan.

Directions for setting up and using Boul's Patent Curving, Paneling, Moulding and Dovetailing Machine.

This Machine is designed for executing work in great variety in four different lines, viz.: Carving or Paneling on the surface of lumber any design, according to the form or pattern used.

Shaping, or Friezing, or more appropriately, Variety Moulding.

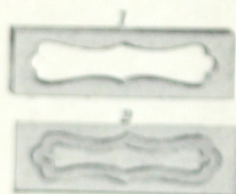
Moulding Scroll or Fret Work, Inlaying and Engraving, and

Dovetailing Drawers, Boxes, etc.

In all cases a countershaft and pulleys accompany each Machine, and is set from 7 to 10 feet in the rear of the Machine, and connected by a three-inch belt (quarter twist) from the long pulley on the spindle of the Machine to the large pulley on the countershaft. There are one tight and four loose pulleys on the countershaft, as shown in cuts, to which the power is communicated from the line shaft. It will be observed that two belts are used for this communication, one of which is crossed, the other straight, either of which drive the Machine when run on the tight pulley. One drives the Machine to the right, the other to the left, as may be desired. *One shifter* only is required to move both belts at the same time.

REQUIRED MOTION.

The pulleys on countershaft are 7 inches in diameter, and should make 765 revolutions per minute. It is necessary, of course, that the Machine should be set square with the countershaft and line shaft, should set level, and when first started should be well oiled. Special attention should be paid to the loose pulleys. The pulley on line shaft should have $17\frac{1}{2}$ inches face.



PANELING AND CARVING.

In arranging the Machine for paneling on the surface, or cutting designs in the solid wood, it is first necessary to prepare a form, or template, of the work to be executed. It is made by simply sawing out the desired shape, or figure, from a straight, common board, as shown above, and according to the following rules:

RULES FOR MAKING FORMS OR PATTERNS USED FOR PANELING.

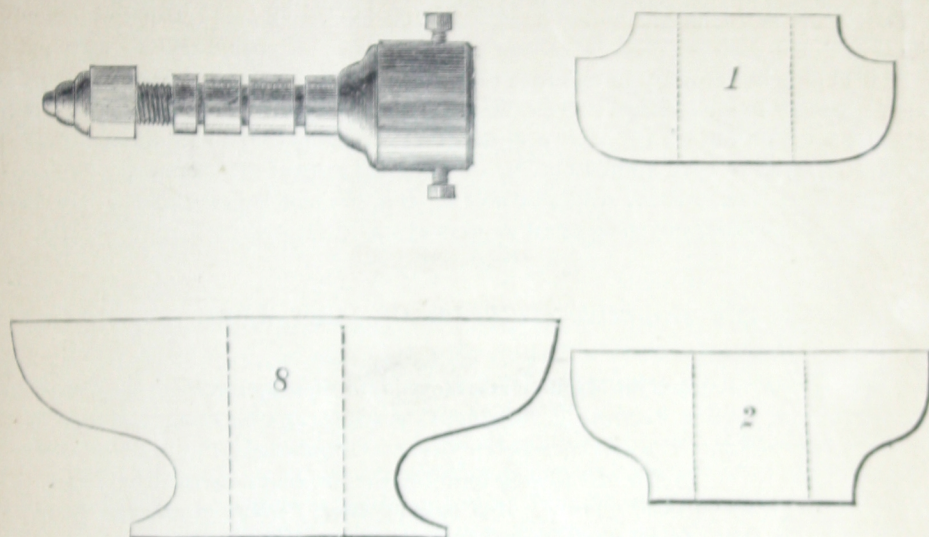
As the center of the guide point is in line with the center of the cutter which makes the groove, it is necessary to make the pattern, or opening, when used concentrically (or the inside) three-eighths of an inch (which is one-half the diameter of the guide-point) *larger* than the center of the groove all round.

When the *outer edge* of the pattern is moved *against* the guide-point, the pattern should be three-eighths of an inch *smaller* than the center of the groove, for the reason that three-eighths of an inch being half the diameter of the point, an allowance made for the same in the form will insure the work being done according to the design without irregularities.

RULES FOR CALCULATING MOTION OF SHAFTS AND PULLEYS,
AND THEIR SIZE.

When the size of driven pulley and motion of driving shaft are given, to find size of driving pulley: Multiply the motion of the driven pulley by its diameter in inches, and divide the product by the motion of the driving shaft; the quotient will be the diameter, in inches, of the driving pulley.

The motion and diameter of driving pulley, and diameter of driven pulley given, to find its motion: Proceed as in the above proposition, and divide by the diameter of driven pulley; the result will be the motion.



OPERATION OF MACHINE AS A SHAPER AND FRIEZER.

When it is desired to use this Machine for Shaping or Friezing, it is only necessary to place the long or stem chuck on the main spindle of the Machine, which is secured by set-screws on the flat spat on one side of the spindle. The cutter is then slipped on to the chuck. Rings, or loose collars, are provided on the chuck, so that the cutters may be given any position in regard to height on the chuck by placing the collars above or below the cutter. The whole are secured by the nut at the end of the chuck. The cutters are made of solid steel, turned the desired mould, and cut either way, and are sharpened on the inner or flat side; the outer or moulded side should not be changed.

The Machine, as shown in Fig. 2, is arranged for Paneling and Cutting Designs on the surface. The small chuck is placed on the spindle, the penetrating cutters, like No. 64, are inserted in the chuck. The guide-head C is adjustable, up or down, to the work by means of screw and hand wheel at N. The cutter is adjusted by the screw rod H, to come as far above the top of the table as is desired to penetrate into the work, then by pressing the foot on the foot latch X, the spindle is let down, carrying the cutter below the top of the table out of the way. The work, with the pattern attached, is placed on the table, the guide point A is then lowered by means of the screw at N until it enters the pattern, and the pressure plate O comes in contact with it. A sufficient amount of pressure is brought to bear, to enable the operator to hold the work firmly in position. Motion being given to the spindle D, the operator then presses his foot upon the lever F, which brings the cutter up into the work, as far as previously adjusted, when the foot-latch X flies into the catch as the elevation is attained, and holds it there. The pattern is then moved around against the guide-point A, until the work is complete.

The cutter being moulded, the work is finished when it leaves the Machine, and as cutters for this work are made with double cutting edges, and will work equally well when revolving in either direction, the cutting can always be done with the grain of the wood.

Should it be necessary to elaborate the work, as shown in some of our cuts, it is only necessary to use successive forms, or patterns of different designs on the same panel. Each design can be cut with a different style of mould, and at a different depth, producing styles of work limited only by the skill and taste of the operator. *The largest circumference and greatest depth should be cut first*, the next largest circumference and depth should succeed, and so on as far as desired.

FOR MOULDING, SCROLL, OR FRET WORK.

Fig. 3, p. 8, illustrates the Machine as arranged for moulding Brackets, Scroll or Fret Work, Inlaying Brushes, Engraving, Routing, Grounding, and for doing fine moulding of every description. This arrangement consists of a spindle head P, placed on the arm as shown, and driven by the belt passing from the countershaft over the friction pulleys T, on to the pulley on small spindle. It is only necessary, when arranging the Machine for this work, to take off the belt from the large pulley and put on a light belt running to the top spindle. This spindle is moved up or down by means of a pin inserted in the brass box, and working in a cam slot in the head. The handles attached to the box is brought around, causing the pin to move up in the slot, carrying with it the spindle. This arrangement is especially convenient in moulding scroll work, as it enables the operator to get at the inside openings. After the work is in position, the cutter is lowered into the opening by the same means that it was raised. When the work is finished, the spindle is again raised, and another opening is brought into position, and so on until the work is finished, all of which is done without stopping the motion of the Machine. The cutters are made with a guide-point, which can be very much reduced in size, and will follow the smallest opening of a scroll-saw. No forms or patterns are necessary. The small table V, shown as setting on the Machine in Fig. 3, and upon which the work is laid, is adjustable up or down, by turning the top around, causing it to rise or fall as may be necessary to accommodate the different thicknesses of stuff to be worked. By this arrangement stuff may be worked from 3-16 to 2 inches in thickness. The same cutters can be used on the lower spindle if thick stuff is to be worked.

TO DO INLAYING,

A thin form or pattern is used of the desired shape, affixed to the work. A small router is used, having a shank equal in size, which is used as a bearing, or guide, for the pattern, which being on the top of the work, the cutter is let down through the pattern into the work the desired depth.

The lower end of the main spindle runs upon a tempered steel screw. The end of the spindle is also tempered, and is made tapering, and fitted to a brass bush, which is set in the lower box a little above the end of the spindle, thus forming an oil box, or chamber, at the extreme end of the spindle, where the two steel points come togeth-

er. The oil passes directly to the chamber through a tube on the outside. The object of the taper fit of spindle and brass box is to prevent side, or lateral motion from wear of the parts. Whenever such motion occurs the box should be raised by loosening the set bolts by which it is held on to the slide, which will allow the box to be raised until there is no lateral motion. It may be necessary to lower the step screw as much as the box is raised. This necessity can be ascertained by observing the adjustment of the spindle endwise. The construction of this part of the Machine is such that the step may always be kept in perfect order.

DIRECTIONS FOR PUTTING ON AND WORKING THE DOVETAILING ATTACHMENT.

The bed-plate clamps on the left-hand side of the top of the Machine, and is placed (by set-screw on the under side) so that the cutter B will enter equi-distant between the fingers C of the carriage as it is moved up. Adjustable stops are placed on this bed-plate—before and behind the slide—to regulate the stroke. A front and side of a drawer, or two of each, if narrow, may be cut at the same time. The ends J are placed upon the fingers C, and held by lateral compression screws. The fronts are placed horizontally in the bottom of the carriage, and held by vertical compression screw H. Adjusters E are provided at each side of the carriage to regulate the position of the lumber, and give the desired relish. The plan of the dovetailing being to make each part (pin and mortise) both at the same time and equal in size (both being of the same size as the cutter). In order to accomplish this, the cutter must be set to work up into the lumber about $\frac{1}{2}$ of an inch, (that being the dividing line of the cutter,) which makes the pin and mortise equal. A slight variation of the cutter, up or down, makes the fit tight or loose, as desired.

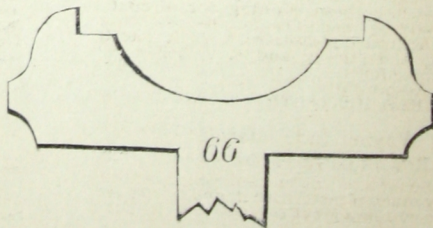
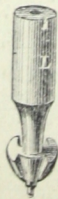
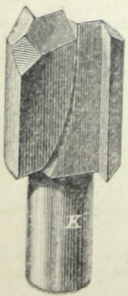
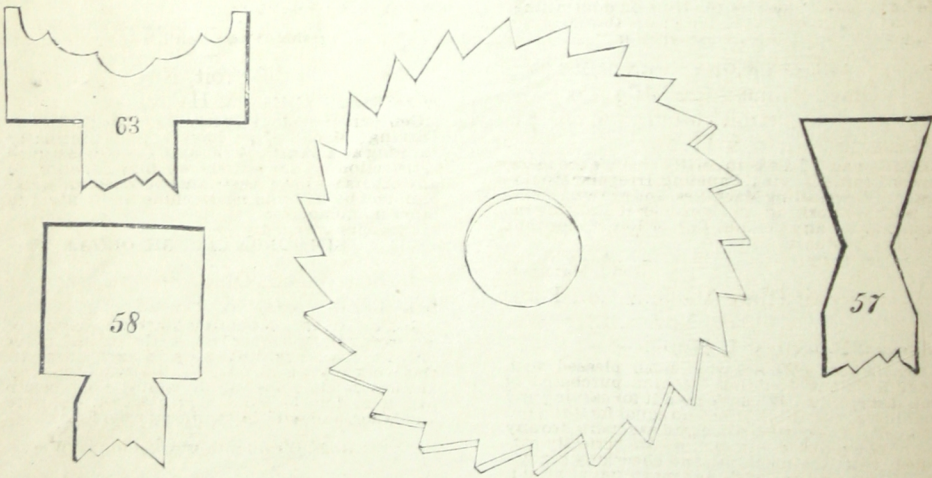
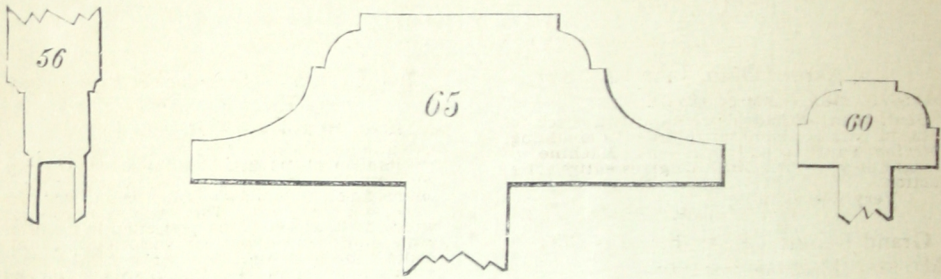
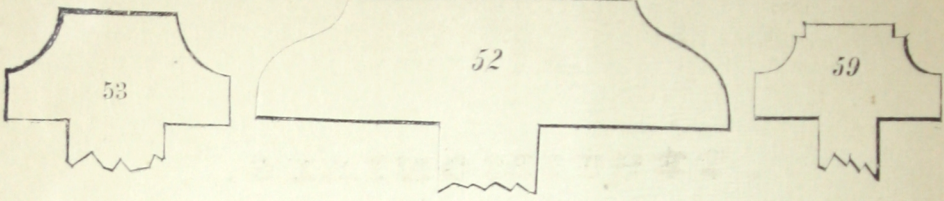
THE RELISH MAY BE REGULATED AS DESIRED

By the position of the adjusters. The slip-pin in the adjusters can be regulated to make side and front come even on the edge. The adjustment for cutting the backs is effected by placing in position a drawer side, after having been cut to match the front, the same as when cut, then place the pieces for back in position, letting the edge come even with the lower corners of the outside, or first pin on the drawer side, then slip the adjusting slip-pin up to the edge of the back, when the Machine is ready for work.

The cutting should commence when the latch is in the second notch from the end of the spacer. In all cases both parts which serve to form a corner are cut at the same time. When once adjusted the slip-pins may be marked so as to readily set the Machine for cutting either fronts or backs, with the corresponding sides, in a few moments.

With right hand on lever A, and left hand on hand-wheel G, the operator has control of carriage. With right hand move it forward, and with the left hand move it laterally. As the carriage moves backward, the dog M lifts the latch F long enough to allow the carriage to pass, when it drops and catches into the next notch, and holds it until another pin and mortise are cut.

Cutters used for Surface Moulding, Routing, Grooving, Dovetail-
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TESTIMONIALS.

Akron, Ohio, June 14, 1873.

MESSRS. BURNHAM & HYDE,—

Gentlemen,—Enclosed we hand you check of \$142, in part payment of the Boul't's Moulding, Carving, Paneling and Dovetailing Machine, we bought of you. The Machine gives entire satisfaction.

Very Respectfully,

MILLER, THOMAS & CO.

Grand Rapids, Mich., Feb. 13, 1873.

MESSRS. BURNHAM & HYDE,—

Gents:—Boul't's Moulder and Carver which we bought of you we have been running over a year. We have used it most of the time on dovetailing. For that and other work for which the machine is adapted, it gives entire satisfaction.

Respectfully,

BERKEY & GAY FURNITURE CO.

Office Pullman Car Mfg. Co.,

Detroit, Mich., Jan 26, '73.

MESSRS. BURNHAM & HYDE,—

Gentlemen.—This is to certify that we are using one of Boul't's Carving, Paneling, Irregular Moulding and Dovetailing Machines, and are well pleased with its working, and consider it a paying investment for any Cabinet, Car, or Joiner shop that is doing business.

Yours truly,

C. F. ALLEN,
Gen'l. Manager.

Office of Howe Machine Co., Peru,

Ind., Nov. 7, 1872.

MESSRS. BURNHAM & HYDE,—

Gentlemen:—We are very much pleased with Boul't's Patent Moulding Machine purchased of you last spring. We have used it for carving and moulding, and think it has no equal for the kind of work. The cutters we regard as superior to any we have ever used. In fact, we are perfectly satisfied with the machine, and cheerfully recommend it to any one wishing a machine of its kind.

Yours truly,

E. D. OLIN Manager.

Ypsilanti, Mich., Sept. 9, 1873.

Battle Creek Machinery Co.:

Gents:—In answer to your inquiries we would say that we have been running one of Boul't's Patent Moulding machines for the past three years, and are much pleased with it. It does its work neatly and quickly, and is, we believe, all that is claimed for it.

Very Respectfully,

EDWARDS, MCKINSTRY & VAN CLEVE.

Fort Wayne, Ind., March 23, '72.

MESSRS. BURNHAM & HYDE,—

Gents:—So far as we have tried your machine, we are very much pleased with it, and we are certain that it will be a great saving to us in time, labor and material.

COCHRANE, HUMPHREY & CO.,
Dealers in Sash, Doors, Blinds, &c.

Office Derrick & Felgemaker Pipe Organ
Co., Erie, Pa., Feb. 15, 1873.

MESSRS. BURNHAM & HYDE.—

Gentlemen.—Yours of the 7th inst., asking how we like Boul't's Machine, is at hand, and in reply we state that the Machine is fully up to your claims for it; it is substantially made, well finished, and works well. The variety of work to which it is adapted, the perfection in finish of same, quick adjustment for various classes, all make it the most desirable machine of the class known to us. If we did not have work to run one more than six hours per week, we would not do without it for twice its cost.

Yours respectfully,

S. L. DERRICK,
President and Gen'l. Superintendent.

Detroit, Nov. 4, 1872.

MESSRS. BURNHAM & HYDE,—

Gentlemen:—Since receiving Boul't's Patent Carving Machine, we have kept it constantly running as a panel raiser, and it gives us good satisfaction. Your cutters we find superior to any others we have used; and we cheerfully recommend both Moulding Machine and cutters to other manufacturers.

Yours very truly,

SIMMONS & CLOUGH, ORGAN CO.

Cleveland, Ohio, Feb 14, 1873.

MESSRS. BURNHAM & HYDE,—

Gents:—Boul't's Moulding Machine, started in our works in December last, we have used as yet only for special routing work in hard wood. In this work it gives us entire satisfaction, quickly and accurately doing and finishing what before had to be done by hand, at great expense of time and labor, and with less uniformity of finish.

H. T. CLAFLIN,

Supt. Cleveland Bridge and Car Works.

St. Louis, Mo., Feb. 11, 1873.

MESSRS. BURNHAM & HYDE,—

Gents:—In regard to your so-called Boul't's Carving and Dovetailing Machine, I would say that in December, 1871, I bought one of them, and used it a year with perfect success. In December, 1872, I concluded to buy one more of them, and as I write this, both are in full motion. They are, without blowing, the two best paying machines in my factory.

You s respectfully,

JOSEPH PETERS,
Furniture Manufacturer.

Cincinnati, March 29, 1872.

MERSRS. BURNHAM & HYDE,—

Gentlemen:—Our experience with Boul't's Patent Carving and Moulding Machine has been, so far, entirely satisfactory.

Respectfully,

THOS. GILPIN & CO.,
Proprietors Miami Planing Mill.

Wabash, Ind., Feb. 12, 1873.

MESSRS. BURNHAM & HYDE,—

Gents:—We have been using Boul't's Patent Carver and Moulder for some time, and find it a very fine machine for our business. We use it mainly for dovetailing and moulding the fronts of drawers, and it works like a charm.

Yours respectfully,

T. F. PAYNE & CO.,
Furniture Manufacturers.

South Bend, Ind., Aug. 28, 1873.

Battle Creek Machinery Co.,—Gents:

Your favor of the 26th is at hand, and contents noted. We have one of Boul't's Moulding and Paneling Machines in our factory, and consider it one of the best Machines of the kind in the market. Your solid steel cutters also give very good satisfaction. Being freed they work smoothly and easily.

Very Respectfully,

KNOBLOCK BROS. MFG. CO.

South Bend, Ind., Aug. 18, 1873.

Battle Creek Machinery Co.,—Gents:

Please find enclosed P. O. Order for \$8.00 to balance account of July 24th. The cutters please us very much. Shall order others as we want them.

Respectfully yours,

SOUTH BEND FTRNITURE CO.

South Bend, Ind., July 31, 1873.

Battle Creek Machinery Co.,—Gents:

Enclosed find P. O. Money Order for invoice of July 28th. We like the cutters well, and shall hereafter send you our orders.

VARIETY BRACKET WORKS.

Detroit, Mich., Aug. 19, 1873.

Battle Creek Machinery Co.,—Gents:

Yours of the 16th is at hand, inquiring as to the use of Boul't's Patent Moulding, Carving, Paneling and Dovetailing Machine in our factory. In reply we would say that we have been using the so-called Machine in our factory over a year, in which time we gave it a fair trial in all its different work, and we can recommend it as superior to any other Machine of the kind. The cutters are far better than any others in use. It is the best paying Machine in our factory. We could or would not do without it.

Yours Respectfully,

SHEFFERLY BROS.

Erie, Pa., Aug. 25, 1873.

Battle Creek Machinery Co.:

We have been using one of your Boul't's Patent Moulding Machines for several months, and take pleasure in saying it has given us good satisfaction. The solid steel cutters work very well.

Yours Very Respectfully,

ERIE CHAIR CO.

Davenport, Sept. 1st, 1873.

Battle Creek Machinery Co.:

I have been using Boul't's Carver and Moulder for more than a year and a half, to my great satisfaction. It does all you say it will, and more. The purposes to which it may be applied, aside from moulding, carving, paneling, and dovetailing, are numerous and important.

Yours Respectfully,

DANIEL GOULD.

St. Johns, Mich., April 4, 1872.

MESSRS. BURNHAM & HYDE,—

Gents:—We take pleasure in recommending Boul't's Carver and Moulder as a perfect success in the capacity for which it is intended by the manufacturers, and find it much more simple and less liable to get out of order than any other machine we have examined. The cutters are an invaluable attachment with which to do fine work.

Yours truly,

D. S. FRENCH,

Sec. St. Johns Manufacturing Co.

Bonaparte, Iowa, Aug. 30, 1873.

Battle Creek Machinery Co.:

We will say in reply to yours that the shaper gives entire satisfaction. The bits of your make cut the best of any we have used. The dovetailing arrangement, as far as we have used it, works well. The quality and quantity of work is satisfactory.

Respectfully Yours,

ENTLER & MEEK.

Chicago, Sept. 1st, 1873.

Battle Creek Machinery Co.:

We the undersigned have used one of Boul't's Patent Moulding, Carving, Paneling and Dovetailing Machine for the last two years, and we recommend the same as one of the best Machines we have ever seen. Also the solid steel cutters we can recommend as the best made. We prefer them to any others.

Yours truly,

PATZACK & SHULTZ.

Chicago, July 12, 1872.

Messrs. Burnham & Hyde:

Gents:—Your favor of 10th inst. is at hand, and contents noted. We have had one of Boul't's Moulding, Carving, and Dovetailing Machines in use in our shops for over a year, and now pronounce it to be a most valuable assistant in all machine shops for wood work. We consider the whole arrangement a success. We also think your cutters for moulding, routing, and dovetailing, as much of a success as the machine itself. We shall be glad at any time to show the machine in work to any person you may send here.

Yours, etc.,

CHAS. J. MCALISTER.

Sup't. Thayer & Tobey Furniture Co.

Indianapolis, Ind., Feb. 14, 1873.

MESSRS. BURNHAM & HYDE,—

Gentlemen:—We have used Boul't's Patent Moulding, Carving and Paneling Machine for the last six months with perfect satisfaction. It does all the work that is claimed for the machine and cutters.

Respectfully,

SPIEGEL, THOMAS & CO.

Chicago, March 5, 1872.

MESSRS. BURNHAM & HYDE,—

We are well pleased with your machine as a dovetailer, but have not tried its moulding capacity yet.

Respectfully,

J. KOENIG & CO.,

Furniture Manufacturers.

Louisville, Ky., March 30, 1872.

MESSRS. BURNHAM & HYDE,—

Gents:—We cheerfully say to you that Boul't's Patent Carving and Moulding Machine we have in use excels the recommendations of the patentee, and our own expectations of its usefulness when we purchased it. We use it for paneling wide bottom rails of sash, or ornamenting door panels, drawer fronts, brackets, scroll balusters, tracing, and a variety of other work, all of which has been done so much better and cheaper than could be done by any other machine, that we have been able to add to the enrichment of our styles of work without increasing the cost. We are highly pleased with the machine, and will take pleasure in recommending it whenever called upon to do so.

Very truly yours,

DAVIS, STORTS & CO.

Proprietors Kentucky Planing Mill.

Dayton, Ohio, March 28, 1872.

MESSRS. BURNHAM & HYDE,—

Gents:—I have been using Boul't's Carving, Moulding and Dovetailing Machine, and am well pleased with it in all its various workings. As regards the moulding of brackets and fret work I think it excels all other machines.

Very truly yours,

D. F. GIDDINGS,

Mechanic for Nat. Asylum for Disabled Vol. Soldiers.

South Bend, Ind., April 9, 1872.

MESSRS. BURNHAM & HYDE,—

Gents:—I am in receipt of your letter of the 22d ult. In reply would say that I find your Moulder and Carver to be indispensable in the manufacture of cabinet furniture. I consider the machine better adapted to that class of work than any other machine in the market, it doing a great variety of work, being easily adjusted to the different kinds, and for paneling and ornamenting bureaus, stands, etc., I find it much ahead of other machines with which I am acquainted. Wishing you much success, I remain,

Yours truly,
JOHN G. RILLING,
Manufacturer of Furniture.

Chicago, March 23, 1872.

MESSRS. BURNHAM & HYDE,—

Gents:—Boul's Carving and Moulding Machine we bought of you works nicely. It is easily used, being simple, and yet does all we require. Cutters work well. The machine is well made, and gives abundant satisfaction.

Very truly yours,
H. S. CARTER & CO.,
General Furniture Manufacturers.

Milwaukee, Wis., March 25, 1872.

MESSRS. BURNHAM & HYDE,—

Gents:—Your favor of the 21st inst., asking as to the use of Boul's Carver and Moulder in my factory, is at hand. I have much pleasure in stating that during the time we have had the machine in use, for some months past, I find it gives perfect satisfaction for sash, door and blind work, and fully carries out all that has been represented for it.

Yours truly,
JOHN HILES,
Sash, Door and Blind Manufacturer.

Office Excelsior School Furniture Mfg.
Co., Eaton, Ohio, Nov. 5, 1872.

Gentlemen:—We beg leave to say that we are much pleased with Boul's Patent Moulder and Carver we got of you, and we take pleasure in recommending it.

Very truly yours,
WM. M. BROOKE,
Secy. retary.

Lima, Ohio, March 23, 1872.

MESSRS. BURNHAM & HYDE,—

It is with pleasure that we fully recommend Boul's Carving and Moulding Machine as being the most perfect and generally available of any machine we have ever used. Could not do without it.

Respectfully,
NEWEL & HERRITT,
Wholesale and Retail Furniture Manufacturers.

Chicago, May 20, 1872.

MESSRS. BURNHAM & HYDE,—

Gents:—Your favor inquiring about my success with the Boul's Carving and Moulding Machine, is at hand. In reply would state that I have been perfectly successful with it in all branches of my business, and find it will do all you claim for it. I could not do without it.

Respectfully,
F. R. WOLFINGER,
Manufacturer of Sewing Machine Furniture.

Corry, Pa., Sept. 11, 1873

Battle Creek Machinery Co.:

Gents:—In regard to your machine, we like it very much, and consider it the best machine we know of for the purposes intended.

Very respectfully,
Corry Furniture Co.

South Shaftsbury, Vt., Aug. 28, '73.

Battle Creek Machinery Co.:

Gentlemen:—Your favor of 20th inst. at hand. We are very well satisfied with Boul's Patent Moulding, Carving, and Dovetailing Machine. We have used it for paneling, dovetailing, and shaping, and for these we like it very much.

Yours,
THE EAGLE SQUARE CO.

Mishawaka, Ind., July 19, 1872.

MESSRS. BURNHAM & HYDE,—

Gents:—We have been using, for some time, one of Boul's Carving, Moulding and Dovetailing Machines and find it to be very useful and economical in the manufacture of furniture. The Dovetailer cannot be beat for making perfect and strong joints. The knives are much the easiest and smoothest working of any we have found.

Truly yours,
L. HARVEY,
Sec. Mishawaka Furniture Co.

Cincinnati, Ohio, Nov. 6, 1872.

MESSRS. BURNHAM & HYDE,—

Gentlemen:—I am well satisfied with your Machine, as a moulder for straight or crooked, light or heavy work.

Respectfully yours,
HARVEY JAMES,
Bridge, Planing Mill, Door and Sash Factory,
Steam Boat Cabinet Builder.

Whitesboro, N. Y., Aug. 29, 1873.

Battle Creek Machinery Co.:

We take pleasure in saying that your Boul's Patent Carving, Paneling, Moulding, and Dovetailing Machine gives entire satisfaction. It has been in constant use in one of its several capacities since last December. For range of work it is unsurpassed, doing carving in numerous styles, variety of moulding of any kind, paneling in any shape desired, and making a strong and handsome dovetail. The rapidity, great variety, and good quality of its work, at once makes it a favorite machine. Your solid steel cutters have been used by us with equal satisfaction. Their durability is recommendation enough to insure their popularity. Hoping your machine may continue to receive the favor it so well merits, we are,

Very Truly Yours,
SUTTON & QUIGLEY.

Jamestown, N. Y., Aug. 21, 1873.

Battle Creek Machinery Co.:

Yours of the 18th inst. requests our opinion of the Boul's Carving, Moulding, Paneling and Dovetailing Machine. We are glad of the opportunity to say that it entirely accomplishes many of the most difficult tests of wood working, and that in our establishment it has already more than paid its cost; besides enabling us to offer our customers goods of more beautiful designs at lower prices. It is one of those machines that, associated with intelligent mechanics, will be constantly put to new uses, and become as useful in a factory as a "new milch cow in a family." We can hardly think of a wood working business of much magnitude that can afford to be without it.

Yours &c.,
D. C. & J. W. BREED & CO.

St. Joseph, Mo., Aug. 2, 1873.

Battle Creek Machinery Co.:

We send orders for Cutters as follows, * * * We think we have accomplished greater work on your machine (Boul's Patent Carver and Moulder) than has ever been done on it before. We can cut one inch deep by three inches wide the first cut, and in hard walnut lumber, and make a finish the first time round. We will send you photograph of \$500.00 chamber sett that we made almost wholly on the machine, in a few days.

Yours Respectfully,
S. & M. K. BENNETT.

Quincy, Ill., July 16, 1873.

Mess. Burnham & Hyde:

Enclosed find draft for Forty-nine dollars and fifty cents, (\$49.50), amount of your Inv. June 27, for solid cutters for our two spindle shaper. Cutters give entire satisfaction.

Yours Truly,
F. W. JANSEN & SON.

Cleveland, Sept. 4, 1873.

Battle Creek Machinery Co.:

Gents:—We do not know of any Moulding machine in the market that we should like as well as well as we do yours, L. S., Boul's Patent. We enclose \$2.50 currency for router.

Respectfully,
PHILPOTT & CAMP.

Waterloo, Ind., Sept. 24, 1873.
Battle Creek Machinery Co. :

Gents:—The Boul't's Patent Moulding Machine we bought of you is a tip-top machine. It is well made, runs well, and does good work. The cutters work smooth and free, and keep a good edge. We are well pleased with it in every respect, and recommend it with pleasure to any one wanting an upr ght Moulding or Dovetailing Machine. It will do more and better work, and with less power, than any machine we ever saw.

Yours truly, BASSETT & McANALLY.

Hillsdale, Mich., Sept. 20, 1873.
Battle Creek Machinery Co. :

Gents:—I have given Boul't's Patent Carving, Moulding, Paneling and Dovetailing machine a fair trial. It is wonderful, the amount of work we are turning off with it. Almost every day we find some new use for it. My foreman said the other day it would do anything but talk. The solid steel cutters are a great improvement. They run steady, and leave the work much smoother than other knives.

Truly yours, HORACE BLACKMAR.

Chicago, Sept. 22, 1873.
Battle Creek Machinery Co. :

Gents:—Your favor of the 18th ult., asking our views as to the merits of Boul't's Carving, Paneling, Moulding, and Dovetailing Machine, was duly received. In reply would say that during the time (over seven months) we have had the machine in use, we have found it indispensable in the manufacture of furniture. We are using it in nearly all of its various workings, and it gives us perfect satisfaction; especially in surface paneling and dovetailing it cannot be excelled by any other machine in use. We would not be without one. Wishing you much success, we remain,

Yours very truly, A. MATUSKA & CO.

Minneapolis, Minn., Sept. 1, 1873.
Messrs. Burnham & Hyde:

Gents:—Your favor received, and contents noted. As you are aware, we have sold but one of your machines, but we can say that one has given entire satisfaction, and we have in view others who will probably purchase. We think it a machine well adapted to the work it is intended for, and know of no instance where it has not given satisfaction.

Yours truly, WALKER BROS.

Office Battle Creek Table Co.,
Battle Creek, Mich., Sept. 1, 1873.
Battle Creek Machinery Co. :

Gentlemen:—When we first put in your Boul't's Patent Carving, Moulding, Paneling and Dovetailing Machine, there was not a man in the factory who understood how to run it; but this difficulty has been obviated, and the machine has performed to our entire satisfaction all that we have required of it. We are glad of the opportunity of saying that as a wood-working machine, and for general and ornamental work, it stands unrivalled.

Very respectfully, GEO. H. ROWELL,
Manager.

Delphos, O., Aug. 26, 1873.

Battle Creek Machinery Co. :

Gents:—We are using Boul't's Patent Moulding, Carving, and Paneling machine, and are highly pleased with it. It certainly is the most important machine in our establishment, and we know that it will do all that it is recommended to do in every particular. The same may be said of your steel cutters, as the machine would be useless without them.

Very respectfully, J. W. FEELY,
Supt. Delphos Union Planing Mill.

Chicago, Aug. 19, 1873.
Battle Creek Machinery Co. :

Gentlemen:—Your favor of the 18th received. We have used one of Boul't's Carving and Moulding machines for about one year, having it in operation nearly all of that time, and on a variety of work, principally moulding drawer fronts, and making dovetail joints, and also beading glass-frames. We are well pleased with the machine, and find it performs all its work satisfactorily.

Yours, SWAN, CLARK & CO.

Chicago, Sept. 17, 1873.
Battle Creek Machinery Co. :

Gentlemen:—After a thorough trial of Boul't's Patent Carving, Moulding, Paneling and Dovetailing machine in all its different specialties, it affords us pleasure to state that it fully meets our requirements in every respect, doing its work quickly and well. The solid steel cutters do excellent service, and we should hardly know how to do without them or the machine. Wishing you every success we are

Yours truly, SUGG & BEIERSDORF,
Furniture Manufacturing Co.

Cortland, N. Y., Sept. 16, 1873.
Battle Creek Machinery Co. :

Sirs:—We are running one of Boul't's machines as a shaping, paneling, and dovetailing machine. We are in every respect satisfied with it. It does to perfection all that it is advertised to do, and many other things "not in the bill." It changes so readily from one kind of work to another that we keep it in constant use.

Respectfully yours, HAYES & DELLOW.

Huntsville, Texas, Sept. 19, 1873.
Battle Creek Machinery Co. :

Gents:—In reply to yours of the 20th inst., we will say that the Boul't's Patent Moulding, Carving, Paneling and Dovetailing machine purchased from you gives entire satisfaction. It does all that is claimed for it.

Respectfully, WARD, DEWEY & CO.

Guelph, Ontario, Aug. 28, 1873.
Battle Creek Machinery Co. :

Gents:—Yours of Aug. 25th is received. We find the Boul't Patent Carving, Paneling and Dovetailing machine very useful to us, being easily changed from one class of work to another, and doing its work well and expeditiously. The cutters in most cases work first-rate. We like the machine very much.

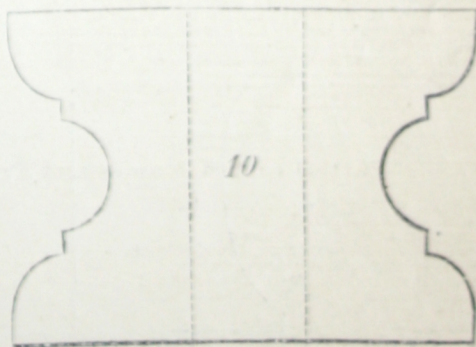
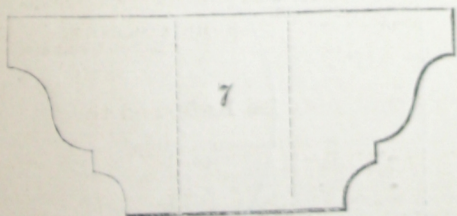
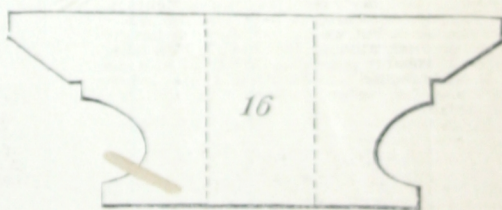
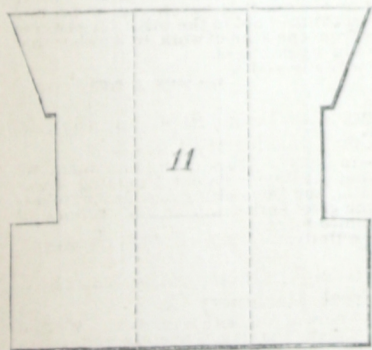
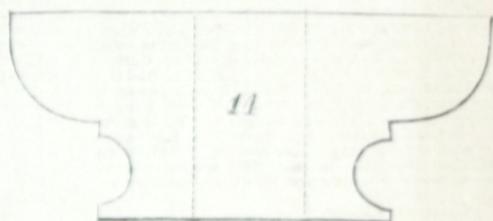
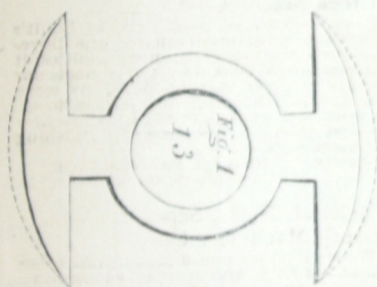
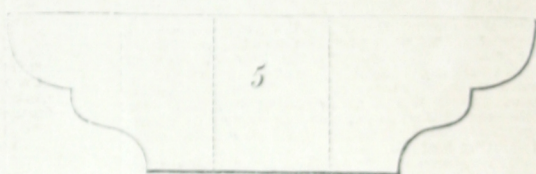
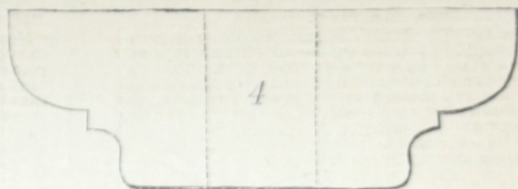
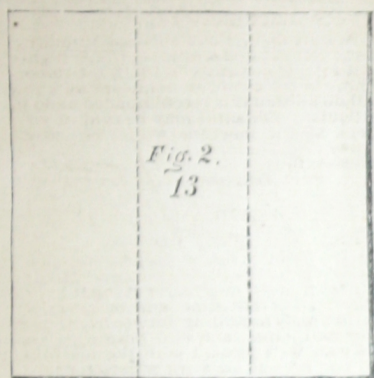
Yours truly, BURR & SKINNER,
Cabinet Makers.

A Partial List of Names and Firms that may be Referred to.

Barker, Wilbur & Co., Lansing, Mich.
D. W. Starkey, Batavia, Ills.
Ills. Central R. R. Co, Chicago.
Sturgis Manufacturing Co., Sturgis, Mich.
Hubbard Bros., Middletown, Ct.
Zerk, Mueller & Co., Mfg. Co., Toledo, O.
Luger Bros. & Dugan, Wabasha, Minn.
Childs Bros., Dayton, O.
Phoenix Mfg. & Co., Grand Rapids, Mich.
B. & M. R. R. Co., Burlington, Iowa.

N. W. Fence Co., Minneapolis, Minn.
A. H. Andrews & Co., Chicago, Ills.
Cincinnati Coffin Co., Cincinnati, O.
Feige Bros., East Saginaw, Mich.
C. H. Prange & Bro., St. Louis, Mo.
Bennett Bros. Mfg. Co., Louisville, Ky.
Rice, Lewis & Co., Toronto, Canada.
Burroughs & Co., Zanesville, O.
Weakley & Warren, Nashville, Tenn.
Estey & Tooley, Detroit, Mich.

Cutters for Edge Moulding, Shaping, &c.



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